Examining the Factors Affecting on Administrative Corruption Along with an Attitude to Bureaucratic Health in Governmental Organizations
(Case Study: Mining Sector of the Ministry of Industry, Mining and Trade)

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Abstract: Struggling with administrative corruption and bureaucratic health is a vital issue in many developing countries, including Iran, and it wastes a lot of time, energy, and facilities from these countries. The platform and haven of administrative corruption is the administrative system and the administration of governmental affairs, and also, in a ministry of Industry, mines and trade, due to its role in the country's economic system, the existence of bureaucratic health and aware of the factors affecting it are important. Therefore, in this research, the main purpose is to examine the factors affecting organizational corruption with an attitude to bureaucratic health, and all the employees and managers of the ministry of industry, mining and trade have been considered as the statistical population (1100 subjects). The sample size is 285 subjects and simple random sampling method has been used for sampling. Data analysis was implemented in the framework of descriptive and inferential statistics in aid of SPSS 23 software. As a result of the research, it can be said that the most significant factors affecting administrative efficiency that lead to the reduction of administrative efficiency in the mining sector of the ministry of mines, industry and trade are efficient supervision - meritocracy in ordinations - employee accountability - organizational justice - organizational trust - occupational satisfaction - organizational commitment of employees - existence of just reward and punishment system - subsistence provision for employees- absence of accountability before employees. Moreover, these factors explain a total of 21.4% concerned with the dependent variable i.e. bureaucratic health, that is the amount of efficiency of these factors in total in increasing bureaucratic health and as a result reducing administrative corruption is 21.4%, that should be drawn the attention of personnel and planners in the field of this ministry.

Keywords: corruption, administrative corruption, bureaucratic health

Introduction and statement of the problem

Struggling with administrative corruption and bureaucratic health is a vital issue in many developing countries, including Iran, and it wastes a lot of time, energy, and facilities from these countries. The bed and haven of administrative corruption is the administrative system and the administration of governmental affairs. There are many evidences based on the more societies move forward, the issue of administrative health and the struggling with corruption becomes more important as one of the pervasive social issues. Ghasemi, 2014: 50) and the approach of lubricating the gears of development for resolving the problem of corruption loses its importance, and this view that corruption acts as a problem more than anything else that leads to disruption in the gear process of development will blossom. (Rabiei, 2012:15). Gunnar Myrdal believes that administrative corruption can be predicated as multifarious cases of deviation or enforcement of personal power and illegitimate use of position and occupational position. J.S. Nye defines corruption as a behavior that specifies a deviation from the normal way of doing duties and represents it as a violation of laws and regulations and doing acts such as bribery, favoritism and embezzlement (Caiden, 2019:8).

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According to most thinkers, administrative corruption existed in governmental administrations is an undeniable disease in all governments and is not specific to a particular continent, region, or ethnic group, and corruption is also found in democratic and dictatorial political regimes, socialist, capitalist, and feudal economies, and corrupt measures are not related to the present time, but its history is as old as the world. Hence, corruption is as old as the concept of government. In fact, wherever power and wealth are focused and wherever there is a government, corruption also exists (Rabiei, 2016:18) and the analysis of the existence of this corruption and administrative health has always drawn the attention of experts and researchers. The results of administrative corruption are naturally contrary to the interests and benefits of the people. Administrative corruption generally occurs in the forms of bribery, nepotism, favoritism and conflict of interest (Krylova, 2020:15).

In Iran, struggling with administrative corruption has always been discussed in various governments, but it seems that discussions have not been so viable, and the bureaucratic health especially in governmental administrations has been faced with various challenges. Preventing from corruption and its spread depends on bureaucratic health, and these two, in other words, administrative corruption and bureaucratic health correlates with each other. Bureaucratic health is a pervasive and global phenomenon, therefore, there is not any country to consider administrative system of even the most democratic, liberal, and developed countries as a complete administrative health, that is, all administrative systems in the world possesses degrees, levels, and layers of corruption. Possessing an administrative health system requires good governance and good governance is based on democracy, and its realization can be occurred by decentralizing and delegating the authority of affairs, both at the organizational level and at the considerable level. Decentralization decreases the power distance and this will induce decrease in administrative internalized corruption (Rafieipoor, 2009: 61). Administrative health and struggling with administrative corruption, especially in organizations and ministries with important production and economic duties, such as the ministry of industry, mines and trade, is a vital necessity for the permanence of the system and government and the movement of the society towards prosperity and welfare, but to struggle with corruption, it is necessary to recognize the factors affecting bureaucratic health, and first of all, the factors and the respective causes should be recognized, so that, we can try to modify and eliminate them after recognizing the causes, then we can resolve the problem and predicaments of that complaint, including corruption, and witness bureaucratic health.

Mohammad (2016) examined administrative corruption in the country and concluded that government organizations in the country have considerable administrative corruption. Aghazadeh (2018), in his research entitled "Preparation of administrative policy model of bureaucratic health and struggling with administrative corruption at the local government level" demonstrates that at the individual level, internal individual factors including "absence of fidelity to religion", "absence of fidelity to ethics" and "risk taking" and external individual factors (depending on the conditions) including "material need", "feeling of injustice", "inappropriate sociability" and "level of communication with clients" have corruptive role and in Organizational level, preventive factors including "notifying and anticorruption culture", "suitability of monitoring mechanisms and coping with corruption", "transparency and accountability" and factors efficiency increment including "unstable income", "using the information technology", "quality of decisions", "quality and the way of enacting laws and regulations" and "meritocracy" have corruptive role in municipalities. Zivberhening et al. (2016), in their research titled "Practical scale for evaluating multidimensional bureaucratic health atmosphere", seeks to examine multidimensional health. The results obtained from the research demonstrated that bureaucratic health has a positive effect on organizational welfare and perceived organizational support has also defended it. The statistics and figures provided by international institutions, including the Transparency International Organization, demonstrates that the state of administrative corruption in the country is in an improper condition, and only in 2021, Iran has ranked 150 out of 180 countries, and definitely there is also uncertain and inconspicuous cases in the domain of administrative corruption. Therefore, in order for organizations and economic sectors, especially the ministry of industry, mines and experience, along with vital duty that has in the economic domain in the country, to have bureaucratic health and to be devoid of administrative corruption, correct analyzes are needed

from different points of view on behalf of them. According to the obtained result of field investigations and the effect of researcher's lived experience in the ministry of industry, mines and trade, it can be said that this ministry and especially its mine sector has administrative violations by some employees and experts in the evaluations, contracts and administrative affairs with regard to amount of client's complaints and the lack of recognition of the factors affecting the formation of administrative corruption in the mine sector of this ministry may cause a lot of damage to the mine activities in the country, and these factors should be calculated in the framework of scientific research, to enact an accurate program for reducing administrative corruption and improving the level of bureaucratic health in this ministry. Therefore, by considering the lack of transparency about the multifarious types and measures of administrative corruption and the factors affecting it in the mine sector of the ministry of industry, mine and trade, the main issue in this research is to identify these measures and various types of corruption, as well as scientific and accurate statistics of bureaucratic and organizational factors affecting on the formation of administrative corruption and eventually increasing bureaucratic health.

The importance and necessity of the research
The importance of the research
Today, administrative health, forces and organizations is one of the subjects that are considered as one of the most important scientific subjects in the world, but there is a strange vacuity in the scientific discussions and Iranian universities about the concept of health. Currently, many international organizations are active in this domain, and various studies and researches have been conducted on measuring the health of the employees in the organizations due to increasing it and struggling with the corruption. The health of the administrative system in governance, in addition to increasing the productivity and efficiency of systems, as well as the effectiveness and quality of service provision, has favorable effects on the national capital of the country, social capital, and people's trust. The administrative system of every society is considered as the executive basis of the political system, concentrating on the factors that promote administrative health and paved the way for preventing from corruption at different levels of the administrative system can be deemed as a great aid to the political system. As corruption weakens democracy and the rule of law, leads to the violation of people's rights, destabilizes markets, destroys the quality of life slowly, and paves the way for generating organized crime and threats to human security. Therefore, trying to improve administrative health and reduce corruption is so vital (Fazel Yazdi and Ahmadian, 2017).

Corruption is one of the most considerable predicaments to progress and development in the domain of mine. Hence, getting familiar with the phenomenon of corruption, types of its measures and components, as well as the negative consequences of corruption from various political and economic aspects can be workable in examining mechanism due to defeating it. Today, corruption has become a global problem in all domains and has induced many damages that disturbs the domestic economy and the development process and distorts the principle concerned with rule of law corruption makes the system to be undermined and the function of the organization to be weakened. In the domain of mine, corruption destroys development by distorting legal regulations, weakens its basic foundations and eliminates the infrastructure growth. The role of the mine sector is to create a balance between conflicting interests that may be created. This requires personal and institutional health in the relevant mine sectors and organizations. With regard to the importance, the emphasis and the message of the Supreme Leader in the meeting with the President and the members of the government delegation that he said: "One of the best alternatives for exporting oil is the mine sector, and in the mines selling crude oil should be prohibited" and the fact that case study has been embedded in the national capitals and interests of the country, therefore, administrative health is so vital in this domain and by conducting studies and scientific research in this domain along with identifying the various measures of administrative corruption and the factors affecting the formation of administrative corruption, many of these factors can be eliminated by presenting scientific results and practical solutions, and by increasing bureaucratic health, the costs related to struggling with administrative corruption can be decreased and administrative corruption will be reduced in one of the most important ministries of the country (Ministry of Industry, Mines and Trade). Another reason for the importance of this research is

that according to the conducted preliminary research, it can be said that very limited studies have been conducted in this field until now, that is, identifying the factors affecting administrative corruption and sociological analysis of bureaucratic health, especially in the field of industry, mines and trade has been done and this research by creating a suitable research background for other researchers, leads to obtaining correct analysis for producing more accurate plan to reduce administrative corruption and improve the state of bureaucratic health in this domain.

Necessity of research
As mines and mineral resources are considered as one of the institutions that have a high risk of corruption and a ground for large-scale economic corruption, and the issue of administrative health in mines is a political and economic issue, it is necessary to identify the factors affecting administrative corruption and sociology analysis of bureaucratic health should be compiled in this domain.
By the lack of identifying various instances of administrative corruption in the ministry of industry, mines and trade, and especially in the mine sector, as well as the absence of recognizing the factors affecting administrative corruption and solutions to increase bureaucratic health, scientific solutions will not be obtained in this domain and a large amounts of the costs will be wasted for lack of scientific endowment and also administrative corruption will be increased, affects the ministry, therefore, conducting scientific research in this domain is so necessary.

Research objectives
The main objective:
Examining the factors affecting administrative corruption along with an attitude to bureaucratic health in the domain of case study
Secondary objective:

1. Identifying the instances of administrative corruption and bureaucratic health in the domain of case study
2. Recognizing the amount of effective factors on administrative corruption in the domain of case study
3. Presenting practical solutions for reducing administrative corruption and increasing bureaucratic health

Theoretical Foundations
From the point of view of Max Weber, intellectual traditional and charismatic dominance or authority has existed. Power has inherited within a tribal structure that often forms a chain of several hundred years. In the rational chain, bureaucratic power is applied on the basis of explicit and clear regulations, thereby the goals justify the means of implementation the means are used by competent and reliable experts, and are guaranteed by professional self-management that is determined by meritocracy. The distinction for corruption analysis derives from the traditional and rational dominance and authority. In the traditional dominance, the definition of corruption-oriented governmental administration is tantamount to the abuse of the governmental administration for private benefit under the rational dominance, and the other is the corruption-oriented favoritism, which forms an inherent part of an inherited command mechanism to obtain a personalized loyalty through the distribution of material rewards, which are generally nepotism. Its main core is rational dominance and ideal or pure bureaucracy, which has provided the most deliberate means of monitoring and controlling people and hierarchical orders are considered as one of the most important principles of this bureaucracy. An ideal and capable bureaucracy for the implementation of the regulation that ensures the health of the administrative system in the organization has the characteristics of integrity and coherence, conductivity in the bureaucracy (the capacity for transferring the effect of macro policies to the micro levels), coordination (the decisions of an individual depend on the decision of a group and the implementation of regulations requires the existence of a coordinated bureaucracy) and accountability (responsibility and transparency). In countries where the mechanisms of administrative affairs are not transparent, corruption hinders economic growth. According to Weber's theory, economic and administrative factors in an organization are the causes of corruption and are considered as

independent variables (Tanhaei, 2015:28). The central core of Robbins' theory is about one of the most important factors inducing bureaucratic corruption, and it is inefficiency of the system as well as the power accumulation, wealth and credit that is allocated to the a few officials who are in the bureaucratic center and the possibility that they abuse their position and move towards corruption. Due to objective movement, improper application of laws and regulations, self-alienation of employees, concentrating on power, disillusionment of bureaucracy clients, has converted into many corruptions that employees and managers of organizations come toward it (Ritzer, 2016: 158).

Moreover, according to Durkheim, what causes social problems and crises as corruption is not poverty or economic poverty, but rather the suddenness of changes and eventually imbalance deriving from it. Economic crises or rapid economic growth causes some people to obtain sudden wealth, and obtaining wealth by some people is actually at the cost of poverty for many others in the society. The prevalence of corruption in the society has closed the path of many social and national progresses and has put huge costs on the country, one of the most important expenses at the macro level is the increase in the class gap between the rich and poor classes, that its consequences is the lack of social justice in the attitude and people's ideology and it is in this state that the collective conscience decreases. Observing wealth and poverty beside each other is the main element of corruption in society. (Jafarinia, 2008:59). According to Merten, deflection occurs due to the difference between the main motivations (values and needs) obtained from culture and the possibilities of realizing this motivation. In fact, when an employee in an organization is not able to achieve his or her goals (financial and spiritual goals), he or she goes astray and tries to achieve his or her dreams through illegitimate ways. When there is no coordination between cultural goals (such as status and wealth) and organizational means to achieve these goals (such as education, effectual friends, etc.), then people who are under pressure in a social structure are probably more exposed to show deviant behavior than others. Such causes of corruption are provided in the organizations where these people work, on the other hand, the existence of trust, commitment and the existence of social networks in the organization leads to the occupational satisfaction of the members (Tahmasebi, 2011: 189).

Considering fivefold health plan of organization or health company, Marvin Brown believes that the most important relationships in organizational life occur in fivefold dimension: cultural, interpersonal, organizational, civil and natural. Each of these dimensions can hinder creating health or collective health. Brown believes that among these fivefold dimension, the cultural dimension is perhaps the most fundamental among all because culture has the nature that binds things together, language, rituals, and communication patterns of culture provide a rich context for us to understand how to communicate with people, experiences and things. The second one, the impersonal dimension, focuses on the relationships that it defines itself. The third one, the organizational dimension, refers to companies as performers. Performers are healthy when their act is aligned with their goals, accepting that goals are valuable. At this level, health is important when it is considered as a harmony but it also means a comprehensive health, which means that companies include their social and natural environments. The company's relationship with the society and nature creates the fourth and fifth dimensions of the company (civil and natural dimensions). Brown believes that all fivefold dimensions are necessary to provide a good level in health of the organization or company. The health of the company or organization faces with five types of challenges: The challenge of the cultural level is related to differences and lack of agreements. At the interpersonal level, the challenge is concerned with recognizing the communications that forms the individual's relationship. More extreme forms of individualism make such recognition to be difficult. These forms of individualism tend to see the individual distinct from others rather than dependent on them. At the organizational level, the challenge is related to providing integration between organizational goals and behavior. In other words, the mission of the company should express such a valuable goal that when the decision is in line with that mission, a person can say that that decision is right, these decisions are part of a whole that are aligned with the mission of the organization. In order for companies to be healthy, they must have a valuable goal that can be a reassuring guide for their decisions. At the social level, the challenge of the company is induced by the fact that the company is located in a larger environment named the city. Therefore, companies cannot pursue their mission in such a way that conflicts with the

requirements of urban life. Company-city relations are often variable and complex. Like the internal work relation that is more than one relation between company-city can be existed at the same time (Brown, 2015: 69). In the ultimate summary of the theoretical foundations and in order to develop a theoretical framework, it can be said that from the point of view of most experts, including Max Weber, Durkheim, Merton, and Brown, various social and economic factors lead to the formation of corruption and lack of bureaucratic health in organizations. Moreover, factors such as transparency in organizations, efficient supervision, meritocracy, accountability, the existence of justice and organizational trust, and occupational satisfaction and organizational commitment can be involved as factors in promoting bureaucratic health and reducing organizational corruption, which should be considered.

Research background

The matrix of the research background is described in the following table.

Table (1): the matrix of researches background

Row	Researcher's name	Title of the research	Research method	Findings and conclusion
1	Zivberhening (2016)	Examining the multidimensional health	Quantitative-survey research	Administrative health has a positive effect on organizational welfare and perceived organizational support has also supported it.
2	E-Rally (2012)	Estimating the effect of social and political indicators to understand public corruption	Quantitative-survey research	Weak media rights, weak internet and cell phone use, short periods of political regime and weak political culture are important indicators for administrative corruption.
3	Brenner and Robbins (2011)	Examining the use of electronic government to struggling with corruption	Quantitative-qualitative	The electronic government system due to struggling with corruption and improving transparency-governmental sectors and struggling with corruption has direct effect and corruption will decline by the use of electronic government.
4	Kasani (2016)	Measuring administrative health and its relationship with organizational justice in water and sewage affairs	Survey research	The state of administrative health in Tabriz water and sewage affairs is at a favorable level. There is a direct and positive relationship among all four factors (administrative, economic, political and social factors) administrative health and organizational justice in Tabriz water and sewage affairs.
5	Jafarie (2016)	The effect of electronic government in promoting administrative health with the mediating role of transparency	Descriptive-survey research	Electronic government has a significant effect on administrative health. Electronic government has a significant effect on organizational transparency organizational transparency has a significant effect on administrative health. The mediating role of organizational transparency between the relationship of electronic government implementation and organizational health is confirmed.
6	Aghazadeh (2018)	Compiling administrative policy model due to struggling with tendency toward administrative corruption at the local government level	Survey research	At the organizational level, preventive factors as "Informant and anti-corruption culture", "Suitability of monitoring mechanisms and coping with corruption", and "Transparency and accountability" and factors that increase effectiveness as "Unstable income", "Use of information

				technology", "Quality of decisions" , "Quality and manner of implementation of laws and regulations" and "Meritocracy" have negative effect in the occurrence of corruption in municipalities.

Summarizing the research background

In spite of conducting numerous researches related to administrative health and the causes and factors concerned with administrative corruption, the results have been limited to presenting objective or abstract factors. Many of the conducted researches refer to the effect of electronic government on promoting administrative health, and some others consider administrative health under two-way relationships with administrative, economic, political, and social factors, and organizational, individual, and environmental factors are influential in the occurrence of corruption and out of three factors, individual factors are considered as the first priority, organizational factors as the second priority, and environmental factors as the third priority.

Research methodology

This research was conducted by the survey method. In this research, all the employees and managers of the Deputy Ministry of Mines and Mineral Industries, Development and Renovation Organization of Iran Mines and Mineral Industries, Iran Geology and Mineral Exploration Organization, Iran Mine Engineering System Organization (if possible) are considered as the statistical population of the research that is tantamount to 1100 subjects. "Cochran" formula has been used to determine the sample size of the desired statistical population and therefore the sample size is equal with 285 subjects. In this research, with regard to the clarity of the sampling framework and the presence of all the people of the statistical population in the Ministry of Industry, Mine and Trade and the possibility of selecting the samples, the simple random sampling method has been used to select the samples by using a table of random numbers. Therefore, numbers were assigned from 1 to 1100 with the people of the statistical population, and then 285 were randomly selected and sample subjects (according to the numbers) were determined. The data collection tool encompassed a researcher-made questionnaire and a documentary method. Moreover, considering the validity and reliability in this research, the "face validity" of the questionnaire has been used. The word formal validity means to identify the validity of indicators by referring to examiners. Therefore, it is tried to use the items for measuring the variables that experienced professors emphasize. Therefore, after regulating the questionnaire and interview, these professors and respective experts, especially the supervisor and advisor, observed them and the problems were resolved. Cronbach's alpha coefficient was applied to measure the reliability of the questionnaire. In this research, before collecting the data, in order to ensure the reliability of the questionnaire, a pre-test was conducted on 1.10 of the statistical population that included 28 subjects. The Cronbach's alpha rate of the questionnaire was 0.76, which is above 0.7 and indicates the validity of the questionnaire and the high integration and internal stability of the items.

Instances of administrative corruption and factors affecting it in the mine sector of the Ministry of Industry, Mine and Trade

In order to count the instances of administrative corruption and the factors affecting it in the mine sector of the Ministry of Industry, Mine and Trade, while examining the existent documents and internal researches in the mine sector, interview among 25 employees and managers of the Deputy Ministry of Mines and Mineral Industries , Development and Renovation Organization of Iran Mines and Mineral Industries, Iran Geology and Mineral Exploration Organization, Iran Mine Engineering System organization was conducted. In this exploratory interview, two general questions were raised as follows:

1- In your opinion, what are the most important instances of administrative corruption in the mine sector of the ministry?
2- In your opinion, what are the most important factors affecting administrative corruption that causes increasing bureaucratic health in the mine sector of the ministry?

According to the implemented summary of the interviews in response to the first question, the most important instances were described in the table below.

Table (2): Instances of administrative corruption and respective quotes

Domain	Instances
1. Expertise domain in mine affairs of ministry of industry, mine and trade	- Precious stones extracted from mines are not properly priced by experts and their price is determined higher than the original price. - Experts declare that the volume of extraction from mines by miners is less or more than usual. - Experts estimate improperly the value of governmental in terms of placing in higher or lower level.
2. Administrative domain in mineral affairs of the ministry of industry, mines and trade	-In the mine sector, directives and instructions are not implemented in the same way for all clients on behalf of employees. - Commitment to work and administrative rules and regulations is not the same for all employees. -The capabilities and working skills of the managers in the mine sector are not alike and some employees do not have suitable work experience. -The experience and effective working relationships of managers and deputies in the mine sector are not in a suitable form. -Many employees are not satisfied with the existent administrative facilities in the mine sector. -Many employees are not satisfied with cooperation with other colleagues in doing administrative affairs. -Many employees in the mine sector are not satisfied with the working hours and place. - There is no trust in a proper form between the employees in doing each other's administrative affairs when they are on leave and not present at the workplace. -There is no equal distribution of rewards and benefits to employees and managers. -There is a little transparency in the implementation of the instructions and working directives in the mine sector. -Legal criteria of working domains in the mine sector of the ministry are not in a suitable form.
3. Information domain in mineral affairs concerned with the ministry of industry, mines and trade	-Disclosed information (Article 5) has been implemented by some employees and absence of collecting information in the ministry system causes information rent. -There is an informational rent about many working domains of the mine sector, and both some employees and some miners are benefited. -Entering the information of mineral discoveries is late or sometimes is not done at all. - The lack of knowledge of users and miners is being abused by some employees and clients. - In some cases, there is no timely informant to the clients in the business affairs of the mine sector. -There is no clear and timely informant regarding tenders and processes to users.

Also, in response to the second question of the interview, the most important factors affecting administrative corruption in the mine sector of the Ministry of Industry, Mines and Trade were described in the following table:

Table (3): the effective factors on administrative corruption

- ▪ Bureaucratic health
- ▪ Transparency in affairs and accurate implementation of regulations and instruction
- ▪ Efficient supervision
- ▪ Meritocracy in ordination
- ▪ Employee accountability
- ▪ Organizational justice
- ▪ Organizational trust
- ▪ Occupational satisfaction
- ▪ Organizational commitment
- ▪ Existence of just reward and punishment system
- ▪ Decrease in trained forces
- ▪ Quality and quantity of employees' subsistence provision
- ▪ Turning money and wealth into social value
- ▪ Absence of accountability to users

Research theoretical model

According to considering the effective factors in this research, the theoretical model is compiled as following:

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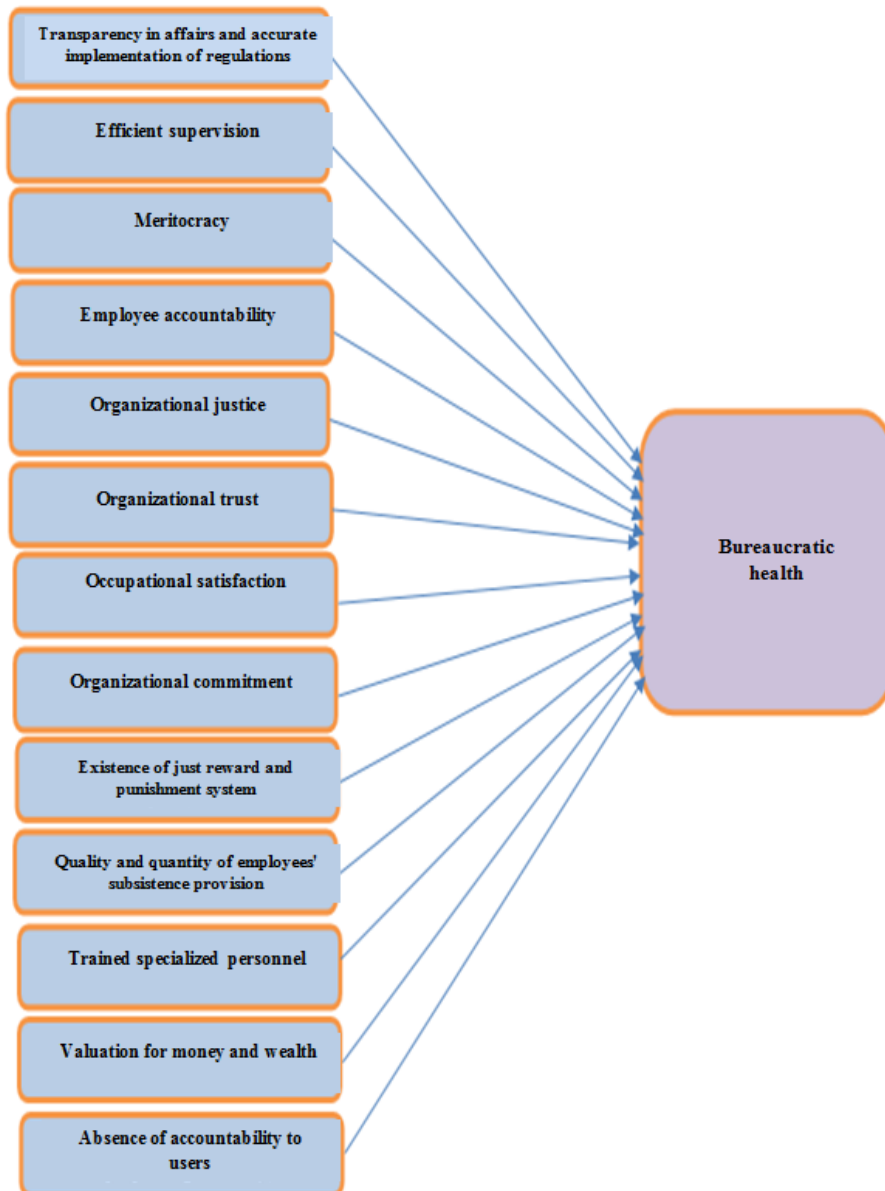
Analysis of the findings

Description of research variables

Transparency in affairs and accurate implementation of regulations and instructions

Table (4): The score percentage of transparency questions in affairs and accurate implementation of regulations and instructions

Transparency	The obtained mean score	Variance	Standard deviation
Score percentage	18.04	1.12	0.85
The obtained score out of 5: 3.60			

According to the obtained score percentage of transparency (3.60) in affairs and accurate implementation of regulations and instructions, it can be said that the amount of this variable is moderate (tendency toward high level).

Efficient supervision

Table (5): The score percentage of efficient supervision questions

Efficient supervision	The obtained mean score	Variance	Standard deviation
Score percentage	14.51	1.32	0.78
The obtained score out of 5: 2.41			

According to the obtained score percentage of efficient supervision (2.41), it can be said that the amount of this variable is moderate.

Meritocracy in ordinations

Table (6): The score percentage of meritocracy in ordinations questions

Meritocracy in ordinations	The obtained mean score	Variance	Standard deviation
Score percentage	13.21	1.01	0.63
The obtained score out of 5: 2.64			

According to the obtained score percentage of meritocracy in ordinations (2.64), it can be said that the amount of this variable is moderate.

Employee accountability

Table (7): The Score percentage of Employee accountability questions

Employee accountability	The obtained mean score	Variance	Standard deviation
Score percentage	14.12	1.69	1.03
The obtained score out of 5: 2.01			

According to the obtained score percentage of employee accountability (2.01), it can be said that the amount of this variable is moderate (tendency toward low level).

Organizational Trust

Table (8): The score percentage of organizational trust questions

Organizational Trust	The obtained mean score	Variance	Standard deviation
Score percentage	11.74	1.03	0.39
The obtained score out of 5: 1.95			

According to the obtained score percentage of organizational trust (1.95), it can be said that the amount of this variable is low.

Occupational satisfaction

Table (9): The score percentage of occupational satisfaction questions

Occupational satisfaction	The obtained mean score	Variance	Standard deviation
Score percentage	17.67	1.89	0.17
The obtained score out of 5: 2.52			

According to the obtained score percentage of occupational satisfaction (2.52), it can be said that the amount of this variable is moderate.

Organizational commitment

Table (10): The score percentage of organizational commitment questions

Organizational commitment	The obtained mean score	Variance	Standard deviation
Score percentage	19.24	1.21	0.93
The obtained score out of 5: 3.20			

According to the obtained score percentage of organizational commitment (3.20), it can be said that the amount of this variable is moderate (tendency toward high level).

Existence of just reward and punishment system

Table (11): The score percentage of existence of just reward and punishment system questions

Existence of just reward and punishment system	The obtained mean score	Variance	Standard deviation
Score percentage	7.34	1.08	1.11
The obtained score out of 5: 1.83			

According to the obtained score percentage of the existence of just reward and punishment system (1.83), it can be said that the amount of this variable is low.

Scarcity of trained personnel

Table (12): The score percentage of scarcity of trained personnel questions

Scarcity of trained personnel	The obtained mean score	Variance	Standard deviation
Score percentage	7.13	1.53	0.28
The obtained score out of 5: 1.78			

According to the obtained score percentage of scarcity of trained personnel (1.78) it can be said that the amount of this variable is low.

The quality and quantity of employees' subsistence provision

Table (13): The score percentage of the questions concerned with quality and quantity of employees' subsistence provision

The quality and quantity of employees' subsistence provision	The obtained mean score	Variance	Standard deviation
Score percentage	18.12	1.03	0.71
The obtained score out of 5: 3.62			

According to the obtained score percentage of the quality and quantity of employees' subsistence provision (3.62), it can be said that the amount of this variable is moderate (tendency toward high level).

Turning money and wealth into social value

Table (14): The score percentage of questions related to turning money and wealth into social value

Turning money and wealth into social value	The obtained mean score	Variance	Standard deviation
Score percentage	6.85	1.32	0.55
The obtained score out of 5: 2.28			

According to the obtained score percentage of turning money and wealth into social value (2.28), it can be said that the amount of this variable is moderate.

Statistics of the questions: Absence of accountability to users

Table (15): The score percentage of questions concerned with absence of accountability to users

Absence of accountability to users	The obtained mean score	Variance	Standard deviation
Score percentage	4.56	1.45	0.4
The obtained score out of 5: 1.52			

According to the obtained score percentage of absence of accountability to users (1.52), it can be said that the amount of this variable is low.

Inferential statistics: In order to complete the process of analysis and the need to measure the relationship among the research variables, the hypothesis test has been conducted as follows:

Dependent variable: bureaucratic health

Independent variables: Efficient supervision - meritocracy in ordinations - employee accountability - Organizational justice - Organizational trust - Occupational satisfaction - Organizational commitment of employees - Existence of just reward and punishment system - Employees' subsistence provision – Absence of accountability to users

Table (16): relationship among the research variables

statistical test	Dependent variable	Independent variable	correlation	sig
Pearson's coefficient of correlation	Bureaucratic health	Efficient supervision	0.539	0.000
Pearson's coefficient of correlation		Meritocracy in ordinations	0.442	0.008
Pearson's coefficient of correlation		Employee accountability	0.412	0.009
Pearson's coefficient of correlation		Organizational justice	0.495	0.005
Pearson's coefficient of correlation		Organizational trust	0.374	0.013
Pearson's coefficient of correlation		Occupational satisfaction	0.469	0.006
Pearson's coefficient of correlation		Organizational commitment	0.398	0.011
Pearson's coefficient of correlation		The existence of just reward and punishment system	0.311	0.028
Pearson's coefficient of correlation		Employees' subsistence provision	0.388	0.010
Pearson's coefficient of correlation		Absence of accountability to users	-0.298	0.046

According to the results of the test, there is a direct, strong and significant relationship between efficient supervision in the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.539 and sig=0.000). That is, by increasing the efficiency of supervision and accurate inspections, administrative health increases and administrative corruption decreases.

Also

- There is a direct, moderate and significant relationship between meritocracy in ordinations in the mine sector of the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.442 and sig=0.008). That is, by increasing meritocracy in the ordinations and selection of people with respective education level and work experience and capable in assigned matters in managements, the level of administrative health increases and administrative corruption decreases.
- There is a direct, moderate and significant relationship between the employees accountability in the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.412 and sig=0.009). That is, by increasing the level of employees accountability in implementing organizational affairs and its reaching the micro and macro goals, the level of administrative health increases and administrative corruption decreases.
- There is a direct, moderate and significant relationship between organizational justice in the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.495 and sig=0.005). That is, by increasing the level of organizational justice in the mine sector, the Ministry of Industry, Mines and Trade and the equal distribution of facilities, benefits and employment and income opportunities, the level of administrative health increases and administrative corruption decreases.

- There is a direct, moderate and significant relationship between organizational trust in the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.374 and sig=0.013). That is, by increasing the level of trust between employees and organizational managers and vice versa and employees' trust to each other, the level of administrative health increases and administrative corruption decreases.

- There is a direct, moderate and significant relationship between occupational satisfaction in the mine sector of the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.469 and sig=0.006). That is, by increasing the level of occupational satisfaction of employees, the level of administrative health increases and administrative corruption decreases.

- There is a direct, strong and significant relationship between organizational commitment in the mining sector of the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.398 and sig=0.011). That is, by increasing the level of organizational commitment of employees to the organization and other employees and timely implementation of task descriptions, the level of administrative health increases and administrative corruption decreases.

- There is a direct, relatively weak and significant relationship between the existence of just reward and punishment system in the mine sector of the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.311 and sig=0.028). That is, by increasing the precision in just reward and punishment system and encouraging successful and effective employees toward organizational effectiveness and punishing the employees as wrongdoers in a timely manner, the level of administrative health increases and administrative corruption decreases.

- There is a direct, moderate and significant relationship between the employees' subsistence provision in the mine sector of the Ministry of Industry, Mines and Trade and bureaucratic health (R=0.388 and sig=0.010). That is, by increasing the employees' subsistence provision in terms of financial domain and increasing facilities, and promoting mental and welfare activities, the level of administrative health increases and administrative corruption decreases.

- There is an inverse, moderate and significant relationship between absence of accountability to users in the mine sector of Ministry of Industry, Mines and Trade and bureaucratic health (R= -0.298 and sig=0.046).That is, by increasing, absence of accountability to users the level of administrative health decreases and the level of administrative corruption increases.

The obtained result of the multivariate linear regression is demonstrated in the table below:

Table (17): Data entry and regression model

Entered variables/omission	
Model	Entered variables
Omitted variables	Method
Efficient supervision **Enter** Meritocracy in ordinations Employee accountability Organizational justice Organizational trust Occupational satisfaction Organizational commitment Existence of just reward and punishment system Employees' subsistence provision Absence of accountability to users	

a. **Dependent Variable: bureaucratic health**

Table above demonstrates that a regression model and Enter method were used to predict changes in the dependent variable (bureaucratic health) according to independent variables.

Table (18): Analysis of one way variance

	Model	Sum of squares	Degree of freedom(df) Significance (sig)	Mean squares	(F)-test
			Analysis of one way variance **a**		
1	Regression	33547.478	4 0.003	3547.332	425.330 **b**
	Residuals	2314.663	244	11.024	
	Sum	35862.141	248		
		a. Dependent variable: the progress of athletes			
		b. Predictors (constant): Efficient supervision, meritocracy in ordinations, employee accountability, organizational justice, organizational trust, occupational satisfaction, organizational commitment, existence of just reward and punishment system, subsistence provision, absence of accountability to users			

Considering the significance of the F-test value, (425.330), at an error level smaller than 0.05, it can be concluded that the research regression model combined with independent variables and one dependent variable (bureaucratic health) has been a suitable model and the sum of independent variables can explain the dependent variable.

Table (19): the summary of regression model

Model	Coefficient the estimate	Square coefficient Correlation (R)	Ratio of correlation coefficient(R) Correlation	Adjusted	Standard error of
		The summary of model **b**			
1	0.462a	0.213	0.214		3.21438
	a. Dependent variable: Bureaucratic health				
	b. Predictors (constant): Efficient supervision, meritocracy in ordinations, employee accountability, organizational justice, organizational trust, occupational satisfaction, organizational commitment, existence of just reward and punishment system, subsistence provision, absence of accountability to users				

The table above shows the summary of the model. The value of the correlation coefficient (R) among the variables is 0.462, that demonstrates that there is a moderate correlation between the set of independent variables (efficient supervision – meritocracy in ordinations- employee accountability - organizational justice - organizational trust – occupational satisfaction - organizational commitment of employees - the existence of just reward and punishment system-employees' subsistence provision – absence of accountability to users) and the research dependent variable (bureaucratic health). But the value of the adjusted coefficient (R2) which is equal to 0.214, demonstrates that 21.4% of the total bureaucratic health is dependent on the research independent variables.

Path analysis
In order to measure all the direct and indirect effects of the components concerned with the dependent variable, a conceptual test model of path analysis has been conducted, and the final results are demonstrate in the following table. In order to obtain total effects of independent variables on dependent variable, the amount of direct and indirect effect of each independent variable should be calculated. Therefore, we specify the direct effects according to the table below, and in order to obtain the indirect effect, we first determine the beta of all the indirect paths and then multiply them together and add the coefficients results of the paths with each other, and then we add the obtained total indirect effect with obtained direct effect. The results of the path analysis and the direct and indirect effects of the variables on the dependent variable (democratic health) are described in the following table:

Table (20): Summing up of path analysis results

Variables	Types of effect		
	Direct	Indirect	Total
Transparency in affairs and accurate implementation of regulations	0.482	0.260	0.742
Efficient supervision	0.546	-----------	0.546
Meritocracy in ordinations	0.501	0.194	0.695
Employees accountability	0.375	0.221	0.596
Organizational justice	0.287	-----------	0.287
Organizational trust	0.267	0.112	0.379
Occupational satisfaction	0.517	0.038	0.555
Organizational commitment	0.498	0.231	0.729
Existence of just reward and punishment system	0.502	0.027	0.529
Scarcity of trained personnel	0.224	0.112	0.326
Quality and quantity of Employees' subsistence provision	0.512	0.086	0.598
Turning money and wealth into social value	0.235	-----------	0.235
Absence of accountability to users	0.309	-----------	0.309

According to the obtained results, the following cases can be stated:

1- Variables of transparency in affairs and accurate implementation of regulations - meritocracy in ordinations – Employee accountability - organizational trust - occupational satisfaction - organizational commitment - existence of just reward and punishment system – scarcity of trained personnel - quality and quantity of employees' subsistence provision affect the dependent variable (bureaucratic health) directly and indirectly.

2- Variables of efficient supervision - organizational justice – turning money and wealth into social value – absence of accountability to users only affect the dependent variable directly.

3- The amount of total effect of each independent variable on the dependent variable is the sum of the direct and indirect effects of each variable.

Consequently:

a) The total effect of transparency in affairs and accurate implementation of regulations on bureaucratic health is equal to 0.742.

b) The total effect of efficient supervision variable on bureaucratic health is equal to 0.546.

c) The total effect of meritocracy in ordinations variable on bureaucratic health is equal to 0.695.

d) The total effect of employee accountability variable on bureaucratic health is equal to 0.596.

e) The total effect of the organizational trust variable on bureaucratic health is equal to 0.379.

f) The total effect of the occupational satisfaction variable on bureaucratic health is equal to 0.555.

g) The total effect of the organizational commitment variable on bureaucratic health is equal to 0.729.

h) The total effect of the variable of existence of just reward and punishment system on bureaucratic health is equal to 0.529.

i) The total effect of scarcity of trained personnel variable on bureaucratic health is equal to 0.326.

j) The total effect of the variable of turning money and wealth into social value on bureaucratic health is equal to 0.235.

k) The total effect of absence of accountability to user variable on bureaucratic health is equal to 0.309.

4- Among components, variable of transparency in affairs and accurate implementation of regulations has the most effect on bureaucratic health.

Also, the variable of organizational commitment has the second place and the variable of meritocracy in ordinations has the third place.

Diagram of Path analysis
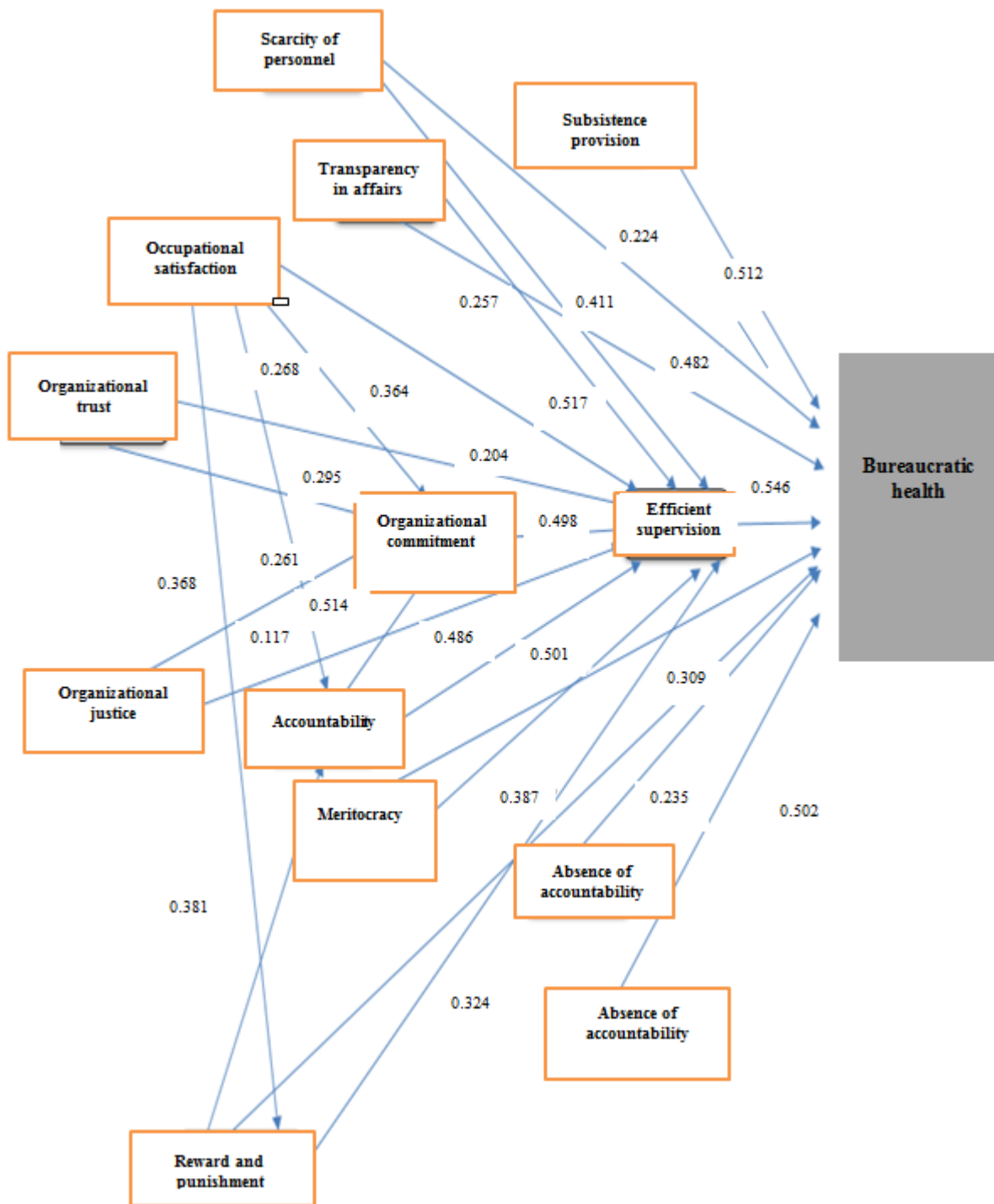
Conclusion

This research was conducted with the purpose of examining the factors affecting bureaucratic health in the mine sector of the Ministry of Industry, Mines and Trade. According to the preliminary investigations, it was determined that the mine sector, like many governmental administrations and organizations, did not possess complete bureaucratic health, and the researcher's lived experience and the statistics of administrative violations and complaints demonstrates that administrative corruption has been existed in some administrative, evaluations, contracts domains and as mines and mineral resources are potentially one of the institutions with the high risk of corruption and the source of widespread economic corruption, and the issue of administrative health in mines sector is a political

and economic issue, it is necessary that accurate scientific examinations in the domain of bureaucratic health should be enacted. By knowing the factors affecting bureaucratic health in this ministry and in the mine sector, it is possible to reduce administrative corruption and plan accurately to increase bureaucratic health. According to the findings of the research, the most important factors affecting the bureaucratic health that lead to the reduction of administrative corruption in the mine sector of the Ministry of Mines, Industry and Trade are efficient supervision – meritocracy in ordinations- employee accountability - organizational justice - organizational trust – occupational satisfaction - Organizational commitment of employees - existence of just reward and punishment system – employees' subsistence provision – absence of accountability to users. The value of correlation coefficient (R) among variables is 0.462, which demonstrates a moderate correlation between bureaucratic health and factors affecting it. Based on the research background, these results are consistent with the investigations belonged to Mohammad (2016), Kasani (2016), Aghazadeh (2018), Zibrehening et al. (2016) and confirm the results of these investigations. Moreover, according to the findings, the variables of transparency in affairs and accurate implementation of regulations - meritocracy in ordinations - employee accountability - organizational trust - occupational satisfaction - organizational commitment - the existence of just reward and punishment system - scarcity of trained personnel- quality and quantity of employees' subsistence provision affect the dependent variable (bureaucratic health) directly and indirectly. Among the components, variable of transparency in affairs and accurate implementation of regulations has the most effect on bureaucratic health and also, the variable of organizational commitment has the second place and the variable of meritocracy in ordinations has the third place.

Also, these factors explain a total of 21.4% of the dependent variable, i.e. bureaucratic health, that is the amount of efficiency of these factors in increasing bureaucratic health and eventually in reducing administrative corruption is 21.4%, that this should draw the attention of personnel and planners in this domain of the ministry.

Research proposals
In general, based on the findings of the research, the following suggestions are presented to the personnel and planners in multifarious organizations of the country, including the Ministry of Industry, Mines and Trade:

1- In order to increase administrative health and reduce corruption in governmental organizations, managers and planners should take action toward increasing the spirit and welfare of employees and paying attention seriously to the equal distribution of facilities and benefits and occupational opportunities according to organizational resources.
2- Officials of governmental organizations should take action toward increasing headquarters supervision, especially in financial domains by trusted employees, as well as examining the financial contracts accurately.
3- In order to increase the bureaucratic health in governmental organizations, strict attention should be paid to meritocracy in managerial occupations and increasing trust among employees, as well as to justice in rewards and punishments, and work instructions and rules and regulations should be properly implemented and observed.
4- Informing sessions and lectures regarding the consequences of administrative corruption and its instances, as well as solutions for increasing administrative health, should be held for employees along with the presence of experts and pundits.
5- Employees should be encouraged with proper commitment in terms of the administrative system in occasions and gatherings and act as role models for other employees.
6- The results of the research should be submitted to personnel involved in the mine sector of the Ministry of Mines, Industry and Trade in order to use the results.

Research limitations
The following cases are stated as research limitations:

- Limitations related to the data collection from individuals of the statistical population due to outbreak of the corona virus in the country
- Absence of accountability by some individuals of statistical population for answering to research questions due to the sensitivity of the subject
- The lack of respective research background in the domain of the Ministry of Industry, Mines and Trade.

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